

AMENDMENT TO THE CLAIMS

Kindly cancel claims 1-34 and claims 36-58.

1-34. (Cancelled)

35. (Original) A method of isolating a disease resistance gene or portion thereof in plants having sequence identity to *RPS2*, said method comprising:

amplifying by PCR said disease resistance gene or portion thereof using oligonucleotide primers wherein said primers

(a) are each greater than 13 nucleotides in length;

(b) each have regions of complementarity to opposite DNA strands in a region of the nucleotide sequence of Fig. 2; and

(c) optionally contain sequences capable of producing restriction enzyme cut sites in the amplified product; and

isolating said disease resistance gene or portion thereof.

36-58. (Cancelled)

59. (Original) A method of isolating a disease-resistance gene or fragment thereof from a plant cell, comprising:

(a) providing a sample of plant cell DNA;

(b) providing a pair of oligonucleotides having sequence homology to a conserved region of an RPS disease-resistance gene;

(c) combining said pair of oligonucleotides with said plant cell DNA sample under conditions suitable for polymerase chain reaction-mediated DNA amplification; and

(d) isolating said amplified disease-resistance gene or fragment thereof.

60. (Original) The method of claim 59, wherein said amplification is carried out using a reverse-transcription polymerase chain reaction.

61. (Original) The method of claim 59, wherein said reverse-transcription polymerase chain reaction is RACE.

62. (Original) A method of identifying a plant disease-resistance gene in a plant cell, comprising:

- (a) providing a preparation of plant cell DNA;
- (b) providing a detectably-labelled DNA sequence having homology to a conserved region of an RPS gene;
- (c) contacting said preparation of plant cell DNA with said detectably-labelled DNA sequence under hybridization conditions providing detection of genes having 50% or greater sequence identity; and
- (d) identifying a disease-resistance gene by its association with said detectable label.

63. (Original) The method of claim 62, wherein said DNA sequence is produced according to the method of claim 59.

64. (Original) The method of claim 62, wherein said preparation of plant cell DNA is isolated from a plant genome.

65. (Original) A method of isolating a disease-resistance gene from a recombinant plant cell library, comprising:

- (a) providing a recombinant plant cell library;
- (b) contacting said recombinant plant cell library with a detectably-labelled gene fragment produced according to the method of claim 59 under hybridization conditions providing detection of genes having 50% or greater sequence identity; and
- (c) isolating a member of a disease-resistance gene by its association with said detectable label.

66-80. (Cancelled)